The Standard Life Republic of Ireland Staff Pension Scheme

ACTUARIAL VALUATION REPORT AS AT 1 JANUARY 2022

September 2022

welcome to brighter

Certification

This is a report to the Trustees of the the Standard Life Republic of Ireland Staff Pension Scheme ("the Scheme") on the actuarial valuation of the Scheme as at 1 January 2022. The previous actuarial valuation had an effective date of 1 January 2019 and was undertaken by Kenneth Edgar.

I confirm that I hold a current Scheme Actuary Certificate which authorises me to complete this valuation.

I have complied with relevant actuarial standards issued by the Society of Actuaries in Ireland and current at the date of signature, namely ASP PEN-1, ASP PEN-3 and ASP PA-2.

The valuation meets the requirements of Clause 9 (b) of the Trust Deed and of section 56 of the Pensions Act, 1990.

The main purpose of the valuation is to set out the Target Funding Level at the valuation date and contribution recommendation for the period to the next valuation. It also sets out various disclosure requirements, including the Scheme's Statutory Funding Level, required by the technical actuarial standards identified above.

The valuation uses data supplied to me by the Trustees, the Scheme's administrators, the Company, the Scheme's investment advisers and the Fund Accountants. I have relied on the accuracy of this data without detailed audit. However, I have taken sufficient steps to satisfy myself that the data is suitable for the purposes of this valuation.

This report is prepared for sole and exclusive use by the Trustees in relation to funding the Scheme. Other parties may only rely upon the valuation with my prior agreement.

Scheme Actuary:	**Sean O'Donovan**
Scheme actuary certificate number:	P021
Qualification:	FSAI
Signature:	
Date of signing:	27 September 2022

Contents

1 Summary and Recommendations

This section contains a summary and the key results and recommendations of the valuation of the Scheme as at 1 January 2022.

The main purposes of the valuation are as follows:

- To set out the Target Funding Level at the valuation date and to recommend an Employer Contribution Rate for the period to the next valuation.
- To confirm if the Scheme satisfied the statutory Funding Standard and Funding Standard Reserve at the valuation date.
- To set out other information specified in actuarial standards of practice.

Funding Level at This Valuation Date

The Target and Statutory Funding Levels at the valuation date were as follows:

€ 000's	Funding Target	Statutory Funding*
Fund Value	125,915	127,621
Accrued Liability	173,054	95,901
Excess/(Shortfall)	(47,140)	31,719
Funding level %	72.8%	133.1%
* Funding Standard and Funding Standard Reserve		

The Target Funding Level remains at a similar level to the previous valuation.

The Scheme satisfied the Funding Standard and the Funding Standard Reserve.

Valuation Recommendations

This section contains the main recommendations emerging from the valuation.

Contribution Rates

The employer contribution that would emerge from the valuation using market conditions as at 1 January 2022 and the assumptions and de-risking strategy outlined below would be €6m per annum for the next 8 years (plus 59.2% of Pensionable Salaries in respect of future service accrual). However since then market conditions have changed significantly. In particular there has been an increase in interest rates which would reduce liability values, offset somewhat by increases in inflation expectations which increases liability values. Considering the impact of this I am recommending the continuation of the existing employer contribution of €4m per annum for the next 8 years (plus 59.2% of Pensionable Salaries in respect of future service accrual). This is more than sufficient based on conditions at the date of signing to finance the shortfall and allow the planned de-risking to continue as outlined.

This is inclusive of the cost of insured benefits and should be paid with effect from 1 January 2022 until the next valuation date.

This amount does not include the expenses of running the Scheme which are payable in addition by the Employer. There are no member contributions and the recommended contribution is in addition to any AVCs being paid by members.

The contributions should be paid before Scheme year end or as agreed between the Employer and Trustees.

Discretionary Powers

Allowance has been made in the funding assumptions for discretionary pension increases but no other discretionary benefits. Funding should be reviewed before discretionary pension increases are granted, in line with the Discretionary Increase Policy. Increases have been granted in recent years in line with the Policy.

I consider it is reasonable for the Scheme to continue to pay transfer values on request and to allow members to exchange pension for cash at retirement in line with the current policy. Early retirement can continue to be reviewed on a case by case basis.

Risk Management

The Scheme is, by virtue of the investment strategy employed, exposed to material financial risks and volatility in the funding level. I recommend that investment strategy should be kept under regular review with a view to exploiting market opportunities to reduce investment risk where appropriate.

The Trustees place substantial reliance on the financial support of the Sponsor. I recommend that the Trustees engage with the sponsor from time to time with a view to understanding the level of support it can provide on an ongoing basis.

Individual Calculations

The Scheme employs various factors in the operation of Scheme, including commutation rates. These rates should be reviewed periodically to ensure they remain appropriate in the context of changing market circumstances.

The Scheme provides transfer values to members on request. These values are determined using the agreed Scheme basis. The Trustees should review the basis periodically to ensure that it remains appropriate.

Other Valuation Matters

Valuation Data

The table below contains a brief summary of the membership data, further details are set out in the Appendices.

	This Valuation	Last Valuation
No. of Employed Members	3	5

	This Valuation	Last Valuation
Pensionable Payroll (€000's pa)	329	539
No. of Deferred Members	544	574
Deferred Benefits (€000's pa)	3,020	3,354
No. of Pensioners	83	75
Pension Payroll (€000's pa)	1,933	1,846

Financial data concerning the Fund was provided by the Investment Managers and taken from the Trustee Annual Report. This data is summarised below

€000's	This Valuation	Last Valuation
Fund Value	125,915	98,870
Asset Distribution		
Defensive Assets	53%	43%
Growth Assets	47%	57%

Inter-valuation Developments

Regular contributions and deficit contributions during the inter-valuation period were paid in line with the recommendations contained in the last valuation report.

The Fund recorded a rate of investment growth of 8.8% pa.

Valuation Method and Assumptions

The methodology and assumptions on which this valuation is based are set out in detail in the Appendices and were fully discussed with the Trustees prior to completing the report. The Trustees have agreed that the valuation contains an adequate degree of prudence and is appropriate for the purpose of this valuation. The most significant financial assumptions are set out below.

	This Valuation	Last Valuation
Discount Rate		
Pre-Retirement	1.0% (single equivalent)	2.0% (single equivalent)
Post-Retirement	1.0% (single equivalent)	2.0% (single equivalent)
Price Inflation	Eurozone HICP Swap Curve	Eurozone HICP Swap Curve
Benefit Increases		

	This Valuation	Last Valuation
Salary Increases	1% pa above the swap curve	1% pa above the swap curve
Deferred Pension Increases	In line with price inflation	In line with price inflation
Pension Increases	50% of price inflation	50% of price inflation

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Ongoing Valuation Results

This section sets out the Target Funding Level at the valuation date and the calculation of the contribution rate required for the period to the next valuation. It also contains an analysis of experience since the last valuation.

Ongoing Funding Objective, Method and Assumptions

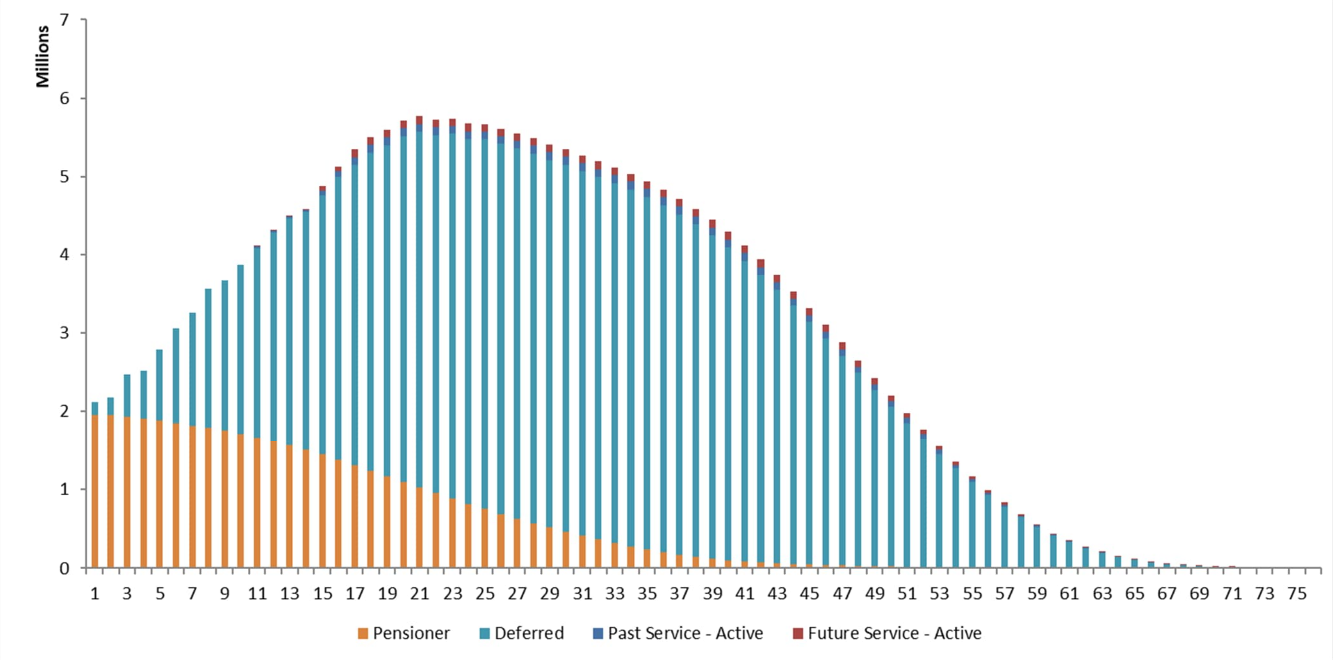
The primary objective of the ongoing valuation is to ensure the Scheme's liabilities are funded from its resources, comprising of the accumulated Fund and any future contributions payable over an agreed timescale.

Details of the method and assumptions on which the valuation is based are set out in the Appendices. These were fully discussed with the Trustees prior to completing the report. The Trustees have agreed that the methodology and assumptions employed contain an adequate degree of prudence and are appropriate for the purpose of this valuation. In summary the key financial assumptions are as follows:

	This Valuation	Last Valuation
Discount Rate		
Pre-Retirement	1.0% (single equivalent)	2.0% (single equivalent)
Post-Retirement	1.0% (single equivalent)	2.0% (single equivalent)
Benefit Increases		
Price inflation	Eurozone HICP swap curve	Eurozone HICP swap curve
Salary Increases/Inflation	1% pa above the swap curve	1% pa above the swap curve
State pension increases	In line with price inflation	In line with price inflation
Revaluation	In line with price inflation	In line with price inflation
Pension increases	50% of price inflation	50% of price inflation

Projected Benefit Cashflows

The chart below sets out the Scheme's projected future benefit cashflows. The projections have been undertaken on the basis of the assumptions set out in the Appendix.



The important points to note in relation to these projections are as follows:

- Projected cashflows total €228.1m. This compares with accumulated assets at the valuation date of €125m. The shortfall has to be financed by a combination of future contributions and returns on the invested assets.
- The cashflows are projected to increase steadily from the current level of €2.12m pa to a peak of €5.77m pa by 2042 before slowly tapering off thereafter.
- The average duration of the benefit cashflows is approximately 25 years.

Liabilities and Contribution Rate for Future Service

The following table sets out the contribution rate required to provide for benefits related to future years of pensionable service.

	This Valuation	Last Valuation
	€000's	€000's
Liability in respect of future service (A)	2,754	3,285
Projected Pensionable Salaries (B)	4,714	7,616

	This Valuation	Last Valuation
Contribution Rate for:	% Pensionable Salaries	% Pensionable Salaries
Future Service [A/B]	58.4%	43.1%
Insured Benefits	0.8%	0.8%

	This Valuation	Last Valuation
Total	59.2%	43.9%
Member Contributions	0.0%	0.0%
Employer Contribution Rate	**59.2%**	**43.9%**

Target Funding Level and Amortisation Contribution Rate

The table below contains a breakdown of the Scheme's accrued liability and funding level:

Assumptions	This Valuation	Last Valuation
	€000's	€000's
Accrued Liabilities		
Members in service	2,828	2,865
Deferred pensioners	133,351	102,487
Pensioners	36,875	32,378
All members	**173,054**	**137,730**
Fund Value	**125,915**	**98,870**
Unfunded liability	47,140	38,860
Funding level %	72.8%	71.8%
	€000's	€000's
Amortisation Contribution	6,000* (8 years)	4,000 (11 years)

** €4m pa is the final recommended contribution reflecting updated market conditions post the valuation date.*

Total Service Contribution Rate

Combining Future and Accrued Service, the total contribution required is as follows:

	This Valuation	Last Valuation
	% Pensionable Salaries	% Pensionable Salaries
Employer Contribution Rate iro future service	59.2%	43.9%
Amortisation Contribution (€000's)	6,000	4,000
Allowance for expenses	0.0%	0.0%
Total Employer Contribution Rate	**59.2% plus €6.0m* for 8 years**	**43.9% plus €4.0m for 11 years**

** €4m pa is the final recommended contribution reflecting updated market conditions post the valuation date.*

This rate includes the cost of insured benefits and expenses. In addition I recommend that the employer pays expenses as they arise.

There are no member normal contributions and the recommended contribution is in addition to any AVCs being paid by members.

Reconciliation of Change in the Target Funding Level

The previous valuation results may be compared to those arising at the current exercise on the funding basis as follows:

	Accrued Liabilities	Assets	Surplus/ Deficit
	€m	€m	€m
Opening Value	**137.7**	**98.9**	**(38.9)**
Cost of service accrual/Contributions paid	0.5	12.6	12.1
Interest on Liabilities/Assets	8.2	6.0	(2.2)
Pension increases / revaluation higher than expected	0.4	-	(0.4)
Demographic experience and other factors	(8.3)	(9.0)	(0.8)
Valuation basis changes	40.5	-	(40.5)
Benefits Paid	(5.6)	(5.7)	(0.1)
Return on investments less interest	-	22.6	22.6
Other	(0.4)	0.5	1.0
Value at end of period	**173.1**	**125.9**	**(47.1)**

The following are the key items of inter-valuation experience:

- The fund return of 8.8% p.a. was better than expected.
- The significant elements of the change in the valuation basis were the discount rate and inflation rate assumption changes and in aggregate these have had the effect of increasing the liabilities.

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Statutory Funding Level

The Scheme satisfied the Funding Standard and the Funding Standard Reserve requirements at the valuation date.

The table below contains a breakdown of the Scheme's statutory funding obligations at the current and previous valuation dates. It also includes the associated level of asset coverage taking account of statutory priorities.

	All amounts in €000's	
Funding Standard	**This Valuation**	**Last Valuation**
Fund Value	127,621	100,630
Funding Standard Liabilities		
Expenses	750	750
AVCs	1,706	1,760
Employed Members	802	879
Deferred Members	52,633	50,592
Retired Members	40,010	35,251
Total	95,901	89,232
Excess Assets Available to provide for Funding Standard Reserve	31,719	11,398
Funding Standard Reserve		
Excess Assets	31,719	11,398
Funding Standard Reserve Obligation		
Asset Allocation Component	2,403	2,821
Interest Rate Component	(6,061)	(396)
Total	0	2,425
Surplus/(Deficit)	31,719	8,973
Asset Coverage		

	All amounts in €000's	
Funding Standard plus Funding Standard Reserve	133%	110%

I have completed and uploaded an electronically signed Actuarial Funding Certificate and Funding Standard Reserve Certificate to the Pension Data Register operated by the Pensions Authority and are included a copy of each in the Appendices.

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Discontinuance Funding Level

The Scheme rules provide for the discontinuance of the Scheme in certain circumstances, including circumstances where the company terminates its liability to contribute. This section sets out some of the considerations that might arise if such an eventuality were to come to pass.

While I have not sought formal legal advice in relation to the provisions of the Trust Deed and Rules, it appears to me that the rules allow the company to terminate its liability to contribute by giving one month's notice in writing to the Trustees. Where the company exercises its power in this regard the rules provide that it remains liable for any contributions that have fallen due prior to the termination date.

Subject to the minimum requirements of the Pensions Act, the selection of an appropriate valuation basis for the Scheme's discontinuance liabilities is generally a matter for the Trustees to determine having taken advice from the Scheme Actuary. A broad range of factors may be relevant to this decision including market parameters that impact on the valuation of pension benefits, the extent of the available resources (including invested assets and potential additional contributions) relative to the liabilities, the nature and scale of the liabilities attributable to particular member cohorts and the conclusions from consultations between interested parties.

The Funding Standard could be regarded to be a discontinuance liability. However for non-pensioners, benefits are calculated on the standard transfer value basis, which for many members is inadequate to provide the Scheme benefit. The actual discontinuance liability could exceed this by a considerable margin. In the event of a discontinuance the Principal Employer has undertaken to pay to the Trustees, for the benefit of the Scheme, the amount of any actuarial deficit on an agreed basis.

As a full consideration of all of the relevant factors is beyond the scope of the valuation, it is not a requirement to include an estimate in the report. However any such measure would include the cost of buying out pensioners with an insurance company. For active and deferred members, the liability is commonly determined on a prudent transfer values basis reflecting current economic conditions. Alternatively, the Trustees may consider settling the entitlements of non-pensioner members by purchasing deferred annuities in the market place which would be expected to increase the cost by a material amount. However, there is no real market in deferred annuities currently in Ireland.

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Risk & Sensitivity Analysis

This section identifies the key financial and demographic risks that could give rise to volatility in the Scheme's funding level. It also illustrates this potential for volatility by including a sensitivity analysis on both the ongoing and statutory funding levels. This analysis focuses on key financial and demographic risks. Other risks including operational and compliance risks, are beyond the scope of this valuation.

Main Financial Risks

The key risks that could give rise to this volatility in Scheme's financial position include:

- Market Risk on growth investments
- Credit risk on bond investments
- Interest and inflation risk on the liabilities
- Currency mismatching to the extent that assets are invested in currencies other than Euro.

While the Scheme's defensive assets contain the Scheme's exposure to these risks, its allocation to growth assets are not matched to the liabilities and could give rise to volatility in the funding level.

Alternative investment strategies may be available which would alter or perhaps reduce the Scheme's overall exposure to financial risks. These strategies would typically involve a reduction in the level of volatile growth assets and a corresponding increase in liability hedging assets such as long dated bonds or even pension annuities.

The Trustees need to be satisfied that the level financial risks currently taken are appropriate having regard to the circumstances of the Scheme and the sponsoring employer and, if not, to consider the scope to "de-risk". As a result, I recommend that investment strategy be kept under review with a view to exploiting market opportunities to reduce investment risk where possible.

Other Risks

Irrespective of the policy chosen in respect of investment risks, other risks that could impact on the Scheme's financial position but which cannot be readily hedged, will most likely remain. The Trustees would need to be aware of these residual risks and consider what if any action is appropriate in their circumstances to manage them. These risks include:

- Exposure to Irish consumer price inflation or general salary inflation,
- Demographic factors including mortality and family statistics,
- Options, if any, that members may have under the rules e.g. to retire early or exchange pension for cash,
- Regulatory, legislative or statutory guidance change that could adversely impact on the liabilities and funding level.

The Trustees rely on the willingness and ability of the employer to provide adequate funding over time in order to provide scheme benefits and ultimately to underwrite the impact of all of these risks. The

Trustees should be aware of the extent to which they rely on the sponsor's covenant and the relative strength of that covenant.

Ongoing Valuation Sensitivities

It is likely that experience will differ from the assumptions and it is important to understand the possible effect on the funding position. In this section, we demonstrate the sensitivity of the Scheme's Target Funding Level to some of the more significant assumptions made.

The assumptions to which the valuation results are most sensitive are as follows:

- **Interest Rates:** The assumed rate(s) of interest used to discount future benefit payments. We have shown the impact of an **increase of 0.25% in interest rates**. We have assumed the reduction will directly impact on the valuation discount rate and on the value of the Scheme's defensive assets.
- **Inflation:** The assumed rate of benefit inflation resulting from revaluation, pensionable salary and pension increases. We have shown the impact of **a 0.5% increase in the assumed benefit inflation rates**.
- **Pension Increase:** The assumed rate of pension increase. We have shown the impact of **a nil increase in the assumed rate**.
- **Mortality:** Mortality rates and the associated allowance for post-retirement longevity. We have shown the impact of **a decrease of one year in life expectation**
- **Economic:** We shown the impact if scheme's investment was to be in **100% bonds**.

The table reflects the impact on the Past Service Funding Level and the overall contribution rate required in each scenario.

All amounts in € 000's						
Sensitivity	**Accrued Liability**	**Fund Value**	**Surplus /Deficit**	**Funding Level**	**Amortisation Contribution (10 years)**	**Employer Contribution***
Target Funding	173,054	125,915	(47,140)	72.8%	4,977	59.2%
Interest Rate	162,725	120,833	(41,892)	74.2%	4,487	55.5%
Inflation	187,839	125,915	(61,924)	67.0%	6,541	63.9%
Nil Pension Increase	144,891	125,915	(18,977)	86.9%	2,007	48.2%
Mortality	167,438	125,915	(41,523)	75.2%	4,389	57.4%
Economic	200,712	125,915	(74,797)	62.7%	7,655	66.4%
* % Pensionable Salaries						

Statutory Funding Sensitivities

We have set out below the level of cover of the Scheme's Statutory Funding Obligations under a range of scenarios relating to long term interest rates and changes in the value of growth assets. For the purpose of this analysis, we have assumed that the standard transfer value basis set by the Pensions Authority remains unchanged although the possibility remains that the basis would be changed if some of the more extreme scenarios come to pass. Note as can be seen below, due to the scheme's interest rate swap protection, a fall in growth assets alone has more of an impact than the combination of growth and interest rates going against scheme in the downside scenario.

Coverage of Liabilities					
	Current	Interest Rate	Growth Asset	Downside Scenario	Upside Scenario
Return on growth assets	N/A	0%	-15%	-15%	15%
Change in Interest Rates	N/A	-0.50%	0%	-0.50%	0.50%
FS Coverage	133%	138%	124%	129%	137%
FS +FSR Coverage	133%	138%	124%	129%	137%

Appendix A Membership Data

The table below contains a summary of the membership data at the current and previous valuation date.

Active Members	Current Valuation	Previous Valuation
Number	3	5
Total Pensionable Salaries (€000’s pa)	329	539
Average age	46.7	44.0
Average past pensionable service	22.2	17.3
Deferred Members	**Current Valuation**	**Previous Valuation**
Number	544	574
Total deferred pensions (€000’s pa) (no allowance for revaluation)	3,020	3,354
Average age	48.1	45.6
Pensioners	**Current Valuation**	**Previous Valuation**
Number	83	75
Total pensions payable (€000's pa)	1,932	1,846
Average age	72.4	70.5

The following is a reconciliation of the membership data as at the valuation date with membership figures at the previous valuation date.

	Active Members	Deferred Members	Pensioners
Number at last valuation	**5**	**574**	**75**
Adjustment	(1)	(1)	
Members leaving service	(1)	1	
Refunds and Transfers		(20)	
Children Pension Ceasing			(1)
Retirements		(10)	10
Deaths			(2)
Dependant’s pension commencing			1
Number at current valuation	**3**	**544**	**83**

Appendix B Asset Information

The table below sets out the Fund Value used in the valuation.

€000s	Ongoing Valuation	Funding Standard
AVCs	NA	1,706
Value of Investments	125,686	125,686
Trustee Bank Account	229	229
Fund Value	125,915	127,621
Allowable Contingent Asset	0	0
Excluded Assets		Company Contributions Receivable, Insured Assets
Total	125,915	127,621
Source		
Source of Information	Annual Report and Accounts	Annual Report and Accounts
Has the fund value been audited	Yes	Yes

The fund value, on which the ongoing valuation is based, was €125,915,000. A value of €127,621,000 was used for the Funding Standard Calculation (includes AVCs).

Inflows and Outflows

The Employer contribution rate recommended at the last valuation was 43.9% plus €4m p.a. The company has paid contributions in line with this recommendation.

The Fund recorded an average return of 8.8% p.a. in the period between the last and current valuation.

The table below set out the significant inflows and outflows from the Fund since the last valuation

	€000s
Opening Value	**100,633**
Contributions Received	12,552
Other Income	0
Total	113,185
Benefits Paid	(14,752)
Other Payments	0
Investment Return	29,189
Value at end of period	**127,621**

Investment Policy

I have been provided with details of the Trustees' investment policy, which includes the following elements:

- An allocation to defensive assets including cash, conventional and index-linked sovereign bonds, other high quality credit instruments and derivative based interest rate swap instruments. The objective of this element of the portfolio is to contain the impact that adverse movements in financial conditions may have on the Scheme's funding level.
- A diversified allocation to growth assets including equity, growth fixed interest, property and various alternative investments. The objective of holding these assets is to enhance the overall yield on the portfolio.

The policy notes that the Trustees intention is to reduce investment risk over time by increasing the allocation to defensive assets and reducing the allocation to growth assets. The policy is to de-risk by end 2028 to 80% bonds, 10% "other assets" and 10% "growth assets". In the meantime, the Scheme's growth assets could not be considered to be matched its liabilities and the funding level may as a result be volatile.

The table below contains the current distribution of the Scheme's invested assets between the main investment sectors:

Asset Class	Actual
Conventional Bonds	20%
Cash	33%
Total Defensive Assets	53%
Equity	0%
Property	6%
Alternatives*	41%
Total Growth Assets	47%
Grand Total	**100%**

*Alternative assets include Diversified Growth, Absolute Return Strategies and Global Bond Strategies

The assumed future yield(s) on which the ongoing valuation is based reflect the Trustees intention in relation to investment strategy. If this intention is changed then it could lead to a change in the relevant assumptions at future valuation dates.

Other matters to note in relation to the assets

The Scheme holds certain assets, including AVCs, on a money purchase basis. These assets and the associated liabilities are excluded from the ongoing valuation. For technical reasons, they are included in the Funding Standard test.

The value of all insured assets and the associated liabilities are excluded from the valuation.

The Trustees insure the lump sum death benefit and spouse's/dependant's pension. All other member benefits are payable from the Scheme's assets.

Appendix C Benefits

The benefits provided by the Scheme are set out in the formal Trust Deed and Rules of the Plan, in any subsequent Deeds of Amendment, in explanatory booklets and in individual notifications to members.

I have used and relied on these documents, including amendments and interpretations of plan provisions without independent verification. The Trustees are responsible for the validity, accuracy and comprehensiveness of this information. If any plan provisions supplied are not accurate and complete, the valuation results may differ significantly from the results that would be obtained with accurate and complete information. Moreover, plan documents may be subject to different interpretations, each of which could be reasonable, and the results under each of the different interpretations could vary.

I have not been notified of any changes to benefits since the last valuation.

The table below sets out the Scheme's approach to benefit options available to members at Trustee discretion and to discretionary benefits that may be provided under the Scheme's rules.

	Allowed under Scheme Rules	Currently Allowed in Practice	Reflected in the Valuation	Change Since Last Valuation
Commutation	Yes	No	No	None
Early Retirement	Yes	Yes	No	None
Transfer Values	Yes	Yes	No	None
Pension Increases	Yes	Yes	Yes	None

The summary above is intended to give an overview of the benefits applying to the majority of members.

Benefit Summary

A.1 The Scheme commenced on 16 November 1992 and is an Exempt Approved Scheme under Part 30, Chapter 1 of the Taxes Consolidation Act 1997. The benefits provided by the Scheme are set out in the Trust Deed and Rules dated 9 August 2004 and any subsequent amendments and Trustee resolutions. In particular, we have allowed for amendments to the benefits effective 1 January 2010.

A.2 The benefits and contributions on which the valuation is based are summarised in broad terms below. A full description of the benefits provided is contained in the formal rules of the Scheme, the Trust Deed and Rules.

1) Definitions

Normal Retirement Date (NRD):

60th Birthday

Pensionable Service:

Continuous and complete years and months of service as an employee of the Company after attaining age 20 and before Normal Retirement Date, earlier retirement or leaving service, subject to a maximum of 40 years.

Pensionable Salary:

Internal Staff: Basic Salary

Sales Staff and Sales Manager: Basic Salary plus the average of bonuses (subject to a maximum of 100% of basic salary) earned from the Company over the 3 calendar years ending on 31st December prior to the date of leaving

Contributions are based on pensionable Salary at 1st January each year.

Scheme Year Earnings:

Internal Staff: Basic Salary

Sales Staff and Sales Manager: Basic Salary plus bonus and commission in that scheme year (subject to a maximum of 100% of basic salary)

2) Eligibility

Members qualified for all benefits of the Scheme on the date of joining the Company, or on their 20th birthday, if later. The Scheme was closed to new entrants with effect from 1 January 2010.

3) Benefits at Normal Pension Age

Pre 1 January 2010

Members receive 1/60th of Pensionable Salary at 1 January 2010 for pensionable service accrued up to 1 January 2010. This benefit is increased in line with CPI (Capped at 4%) from 1 January 2010 to their date of retirement.

Post 1 January 2010

For each year of service members receive a benefit of 1/60th of their pensionable salary for that year. The yearly benefit is then increased in line with CPI (capped at 4%) for each year up to retirement.

The total pension that members receive will be reduced at State Pension Age by 1/80th of the basic state pension for each year of pensionable service.

4) Early retirement

Members may retire early on, or after their 50th birthday, with the consent of the Company and Trustees.

Members may also retire early, with the approval of the Company at any time due to ill health or disability.

5) Late retirement

Members may retire after their Normal Retirement Date, with the consent of the Company.

6) Retirement lump sum

Member may exchange up to 25% their pension at retirement for tax-free cash, with the consent of the Company and subject to Revenue limits.

7) Benefits payable on death after retirement

The member's spouse will receive a pension of 2/3rds the members' pension at retirement before any exchange for tax-free cash took place. The spouse's pension will take account of any pension increases granted to the member before their death.

8) Benefits payable on death in service

Lump Sum

Four times member's pensionable salary at the date of death

Spouse's Pension

A pension will be payable to the member's spouse of 1/3 of the member's pensionable salary at the date of death.

9) Benefits available on leaving service

Less than two years qualifying service

The member will receive a refund of contributions

More than two years qualifying service

The member will receive at deferred pension which will be increased in line with CPI (capped at 4%) from the date of leaving until Normal Retirement Date.

10) Members' contributions

There are no remaining active members contributing to the Scheme.

11) Pension increases

Pension increases are at the discretion of the Trustees, with the agreement of the Company and in accordance with the Discretionary Increase Policy.

Appendix D Statutory Funding

The Scheme must satisfy both the Funding Standard and the Funding Standard Reserve requirement set out in the Pensions Act to meet the statutory funding regime. Failure to do so will result in a requirement to prepare a funding proposal to address the shortfall.

Funding Standard

A scheme satisfies the statutory Funding Standard (FS) if, in the opinion of the actuary, the assets are greater than the prescribed value of the liabilities. The outcome is confirmed in an Actuarial Funding Certificate prepared by the Scheme Actuary and submitted to the Pensions Authority through their online Pensions Data Register portal.

The assets, net of any self-investment or concentration of investment beyond prescribed limits, are taken into account at the net realisable value described earlier.

The value of liabilities includes a priority allowance for the estimated expenses of administering a wind up together with the value of contractual benefits. The contractual benefits valued are as follows:

- Benefits secured by AVCs.
- The pensions in payment and associated contingent pensions.
- The deferred benefits payable to, and in respect of, former members to which these members became entitled on leaving service.
- The deferred benefits notionally payable to, and in respect of, active members if they had left service on the effective date.
- Any contractual increases on benefits in payment or in deferment.

The basis of valuation of these expenses and benefits is as follows:

- The expenses of administering a wind up are assumed in line with the expected market cost of such an exercise for a Scheme of comparable size.
- The liability in respect of pensioners is the estimated cost of purchasing annuities on a bulk basis from a life office. We estimate annuity purchase rates by reference to publicly available data from the insurance companies and our experience of the market. However, as this is a dynamic market, there is some uncertainty relating to the true bulk annuity buy out cost.
- The liability in respect of active and deferred members is the sum of the standard transfer values payable in respect of these members. Standard transfer values have been determined in accordance with the minimum transfer value basis prescribed by the Pensions Authority.

The Pensions Act contains complex rules relating to the order in which certain components of members' deferred benefits are settled in a wind up. A precise breakdown of the liability, which is only relevant in an actual wind up when a scheme is under-funded, is beyond the scope of the valuation.

Funding Standard Reserve

Schemes need to hold, or have access to, sufficient assets to cover the existing statutory Funding Standard liabilities together with a risk reserve (Funding Standard Reserve) to satisfy the statutory funding regime. The Funding Standard Reserve is the sum of the following two parts:

1. 10% of the Funding Standard liability less 10% of the assets that are denominated in Eurozone sovereign debt, cash or other prescribed assets, and

2. The increase in the Funding Standard liability associated with a reduction in long-term interest rates of 50 basis points, less any corresponding increase in the value of the fund.

The Scheme's capacity to satisfy the Funding Standard Reserve requirement is confirmed in a Funding Standard Reserve Certificate. This Certificate is completed by the Scheme Actuary in tandem with the Actuarial Funding Certificate.

Appendix E Ongoing Valuation Method and Assumptions

Overview

A funding valuation is a snapshot of a scheme's estimated financial condition at a point in time; it does not predict it's ability to pay benefits in the future and does not provide any guarantee of future financial soundness. Over time, the total cost of a scheme will depend on a number of factors, including the amount of benefits paid and the period of time over which they are paid, plan expenses and the amount earned on any assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the valuation date.

Because modelling all aspects of a situation is not possible or practical, we use summary information, estimates, or simplifications of estimates to facilitate the modelling of future events in an efficient and cost-effective manner. We may also exclude factors or data that, if used, in our judgment, would not have significantly affected our results. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results.

Valuations primarly impact on the timing of when benefit costs are funded. If the costs recognized over a period of years are lower or higher than necessary, for whatever reason, normal and expected practice is to adjust future expense levels with a view to funding the entire cost over time.

Ongoing Funding Objectives

The primary objective of the valuation is to ensure the Scheme's resources are adequate to provide for the value of its liabilities. This objective is the same as that employed in the previous valuation.

In this context the Scheme's resources consist of its invested assets, future anticipated contributions and future anticipated investment returns. The value of the Scheme's liabilities is determined by firstly projecting the benefits payable in the future. Projected benefit outflows are then capitalised by discounting the projected cash flows at a suitable discount rate or rates.

The Trustees need to hold sufficient assets to meet the Scheme's Statutory Funding Obligations at any measurement date but this is not considered further in this valuation.

Determining the future contribution rate

The Rules of the Scheme specify that the employer shall pay such contributions to the fund as the Scheme Actuary may certify to be necessary to meet the cost of benefits in respect of members and preserve the solvency of the Scheme.

The contribution rate in respect of retirement benefits is determined using the **"attained age"** method of funding. Under this method the contribution is the sum of two parts determined as follows:

Future Service Rate: This is the cost of funding benefits related to future potential years of pensionable service for current employed members. It is determined by dividing the current actuarial value of projected benefits related to future years of pensionable service by the current actuarial value of projected pensionable salaries. In this way, the Future Service Rate is expressed as a level percentage of future anticipated pensionable salaries and is payable over the remaining working lifetime of those employees.

Amortisation Amount: This is an adjustment to the contribution rate to reflect any difference between the accumulated assets and the value of benefits already accrued by members. The value of accrued benefits is deducted from the Fund Value to derive an accrued service funding level which is then expressed as a fixed annual amount over a period to be determined by the Trustees and the Scheme Actuary, in this case 8 years (11 years at prior valuation).

In theory a contribution rate determined in this manner will be stable if the assumptions on which it is based are realised and the funding objective remains unchanged. However, in practice the funding level is likely to be volatile reflecting the degree to which the nature of the assets differs from the liabilities.

The cost of funding insured death in service benefits is met by the Scheme and the recommended contribution rate is increased by an allowance of 0.8% of pensionable salaries as a result. This is the same approach as the last valuation.

The valuation makes no allowance for the cost of administering the fund which is payable by the employer in addition to the contribution rate recommended in this report.

Valuation Assumptions

To prepare the valuation report, assumptions are used in a forward looking financial and demographic model to present a single scenario from a wide range of possibilities; the results based on that single scenario are included in the valuation. The future is uncertain and the Scheme's actual experience will differ from those assumptions; these differences may be material because these results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions.

Different assumptions or scenarios within the range of possibilities may also be reasonable and results based on those assumptions would be different. As a result of the uncertainty inherent in a forward looking projection over a very long period of time, no one projection is uniquely 'correct' and many alternative projections of the future could also be regarded as reasonable.

The Risk and Sensitivity Analysis provides an indication of the degree to which results would be different if you substitute alternative assumptions within the range of possibilities for those utilized in this report.

Assumptions may be changed from one valuation to the next because of changes in mandated requirements, plan experience, changes in expectations about the future and other factors. A change in assumptions is not an indication that prior assumptions were unreasonable when made.

The valuation uses both financial and demographic assumptions, which are set out below. A market based approach has been used in setting the assumptions for the purposes of the ongoing valuation. This is then compared to the market value of assets and so the assets and liabilities are measured in a consistent manner.

Except where noted otherwise, the assumptions are unchanged from the previous valuation.

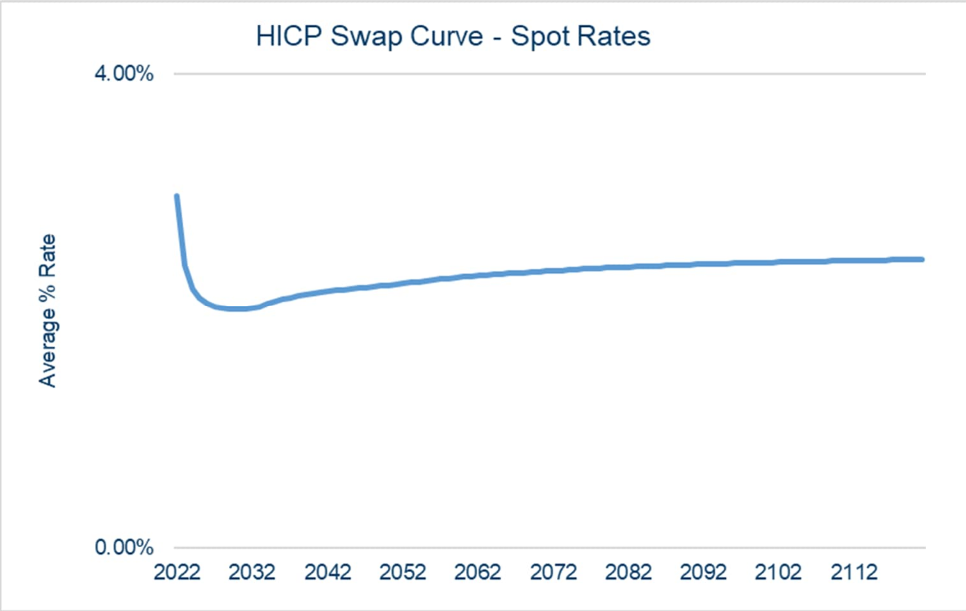
Demographic Assumptions

The number of members in the Scheme is too small to produce any meaningful scheme specific demographic assumptions and as a result the demographic assumptions employed reflect our broader experience of schemes generally. The range of demographic assumptions employed in the valuation are set out in the table below.

	This Valuation	Last Valuation
Post-retirement mortality		
Table	S3P Tables (-1 age rating)	S2P Tables (-1 age rating)
Mortality Improvements	CMI 2019 [1.5%]	CMI 2016 [1.5%]
Life Expectations from age 60		
Male (born 1954)	27.4	27.6
Female (born 1954)	29.3	29.6
Male (born 1974)	29.2	29.5
Female (born 1974)	31.2	31.5
Other Demographic Assumptions		
Pre-retirement mortality	Same as post-retirement for active, nil for deferred	Same as post-retirement for active, nil for deferred
Early Leavers	None	None
Early Retirements	None	None
Commutation	None	None
Family Statistics	90% Married at date of death	90% Married at date of death
State Pension Age	66	66/67/68 depending on year of birth

Future Price and Benefit Inflation

The assumed future rate of price inflation is a key determinant of future benefit inflation. We have assumed that future price inflation will follow the Eurozone HICP swap curve. The chart below sets out the shape of future anticipated inflation rates. The rates shown are “spot” rates which reflect the annualised rate of inflation to that point in time.



As mentioned price inflation is a key input to the assumed rates of benefit inflation. The table below summaries the rates of price and benefit inflation adopted in this valuation compared to the last.

	This Valuation	Last Valuation
Price Inflation	Eurozone HICP swap curve	Eurozone HICP swap curve
Salary Inflation	1% pa above the swap curve	1% pa above the swap curve
State Pension Increases	In line with price inflation	In line with price inflation
Statutory Revaluation	In line with price inflation subject to statutory caps	In line with price inflation subject to statutory caps
Pension Increases	50% of price inflation	50% of price inflation

Discount Rates

One of the critical assumptions underpinning the valuation results is the anticipated return on the Plan's investments over time, net of anticipated investment management expenses. In the valuation, this is reflected in the discount rates that are used to determine the present capitalised value of the future benefit and contribution cash flows. In this section we set out how the various discount rates employed have been derived.

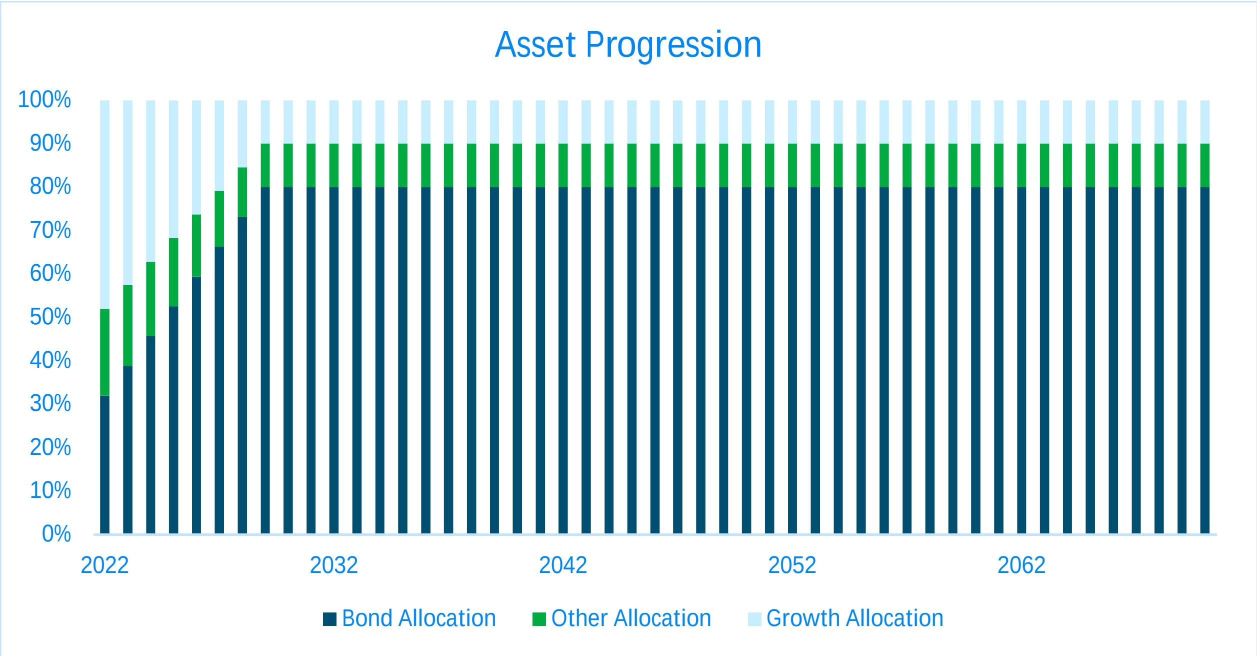
Market yields are a key input to the determination of discount rates. These rates have fallen considerably since the previous valuation. The table below compares 20 year swap rates at the date of the valuation date with the corresponding rate at the previous valuation date:

	This Valuation	Last Valuation
20 Year SWAP Yields	0.55%	1.38%

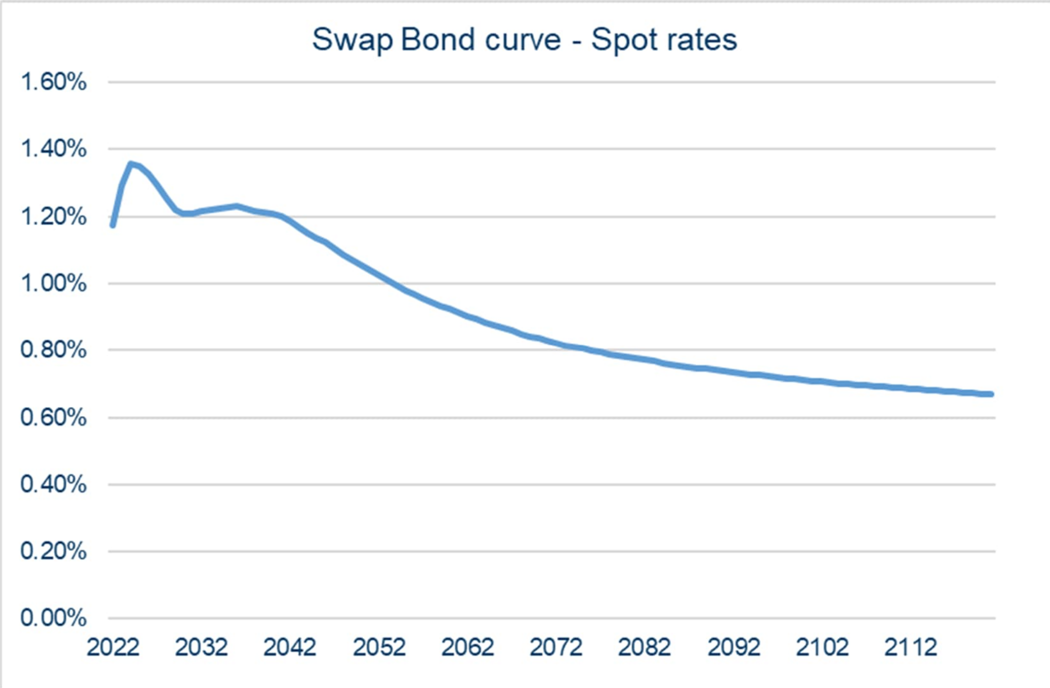
One of the Trustees' investment objectives, which is unchanged since the previous valuation, is to de-risk the fund over time.

In this valuation the discount rates have been modelled by reference to the current and a projected future asset allocation that more explicitly reflects the Trustees intention to de-risk the fund over time. The policy is to de-risk by end 2028 to 80% bonds, 10% "other assets" and 10% "growth assets". This is the same approach as the previous valuation.

The chart below sets out the current and projected future asset allocation, with assets characterised as bond, growth and other oriented investments.



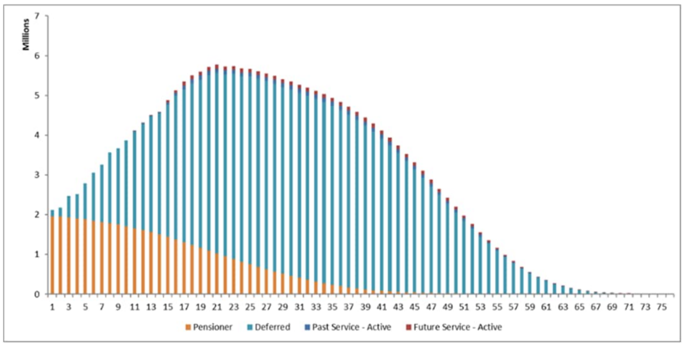
The market expectation of the future returns on each of the main asset classes identified in the chart above has been modelled by reference to the EUSA Eurozone Interest Swap Curve ("Swap Curve"). This curve, which provides information on current prevailing interest rates over different durations, is set out in the chart below:



We have made the following assumptions in constructing the anticipated future return on the portfolio:

- The matching portfolio will achieve a return of 0.0% per annum (net of expenses) in excess of the yield on the Swap curve (0.05% in 2019).
- The equity portfolio will achieve a return of 3.2% per annum (net of expenses) in excess of the yield on the Swap curve (2.93% in 2019).
- The other growth assets will achieve a return of 0.7% per annum (net of expenses) in excess of the yield on the Swap curve (0.61% in 2019).

We have combined the above yield and allocation assumptions to calculate the anticipated yield on the Scheme's investments at various time horizons. The first chart below shows the spot yield curve together with the discount rates used to value projected cashflows in all future years. The second chart shows the expected future benefit payments from the Scheme in €Ms. The rate illustrated at time 2022 in the first chart is used to discount the first cashflow in the second chart. This approach is adopted for all future years and is summed to give the accrued and prospective funding target with a weighted average discount rate of approximately 1% p.a.



Economic Valuation

For the purpose of determining the 'economic' value of the liabilities we calculated the weighted average discount rate based on 100% investment in the Plan's long-dated bond portfolio. The returns on those bonds are derived from the rates on the Swap curve in line with the methodology outlined above net of allowance for investment expenses. The weighted average discount rate used to discount the cashflows in this case is 0.42%.

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